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EXAMINER

BROWN, COURTNEY A

ART UNIT	PAPER NUMBER
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1616

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09/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/821,326	Applicant(s) LEACH ET AL.	
	Examiner COURTNEY BROWN	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-31, 34-45, 57 and 96-144 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-31, 34-45, 57, and 96-144 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt of Amendments/Remarks filed on May 9, 2008 is acknowledged. Claims 32-33, 46-56, and 58-95 stand cancelled. Claims 23, 25-31, 38-42, 57, and 96-103 have been amended. Claims 106-144 were added. Claims 23-31, 34-45, 57, and 96-144 are pending and are being examined for patentability.

Priority

Priority to US Application 60/461,547 filed on April 9, 2003 and US Application filed on November 11, 2003 is acknowledged.

Information Disclosure Statement

Receipt of Information Disclosure Statements filed on March 17, 2005, June 20, 2006, May 4, 2007, and June 27, 2007 and October 12, 2007 is acknowledged.

Rejections and/or objections not reiterated from the previous Office Action are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

New Double Patenting Rejections

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

1.

Claims 23-31,34,38-45,96-99 of this application conflict with claims 1-19 ,23-35,38-45 of Application No. 12081751 . 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 23-31,34,38-45,96-99 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-19 ,23-35,38-45 of copending Application No. 12081751. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

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2.

Claims 34-31,34,38-45,96-99 of this application conflict with claims 1-11,13-19,23-35, and 38-45 of Application No. 12213529 . 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 34-31,34,38-45,96-99 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-11,13-19,23-35, and 38-45 of copending Application No. 12213529. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29

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USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1.

Claims 23-45, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11, 12, and 20 of copending Application No. 11/299,522 in view of Heuer et al. (US Patent 5,874,025).

Copending "522" claims 11, 12 and 20 claims the same method as instant claim 23 except the instant claims require that the inorganic biocide is a copper compound. However, Heuer et al. teach the use of copper compounds as the inorganic biocide component in wood preservative compositions. One of ordinary skill would have been motivated at the time of the instant invention to make this combination in order to receive the expected benefit of protecting the wood material from biological infestation and growth through the use of a copper inorganic biocide. Further, the use of copper compounds as inorganic biocides in wood preservative compositions is common to one of ordinary skill in the art. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

2.

Claims 23-45, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12-15 and 17-20 of copending Application No. 11/250,312 in view of Laks et al.(US Patent Application 2002/0051892 A1).

Copending "312" claims 12-15 and 17-20 claims the same method as instant claim 23 which is drawn to a method for preserving/fabricating a wood product by treating it with a composition comprising a copper bearing inorganic biocide and an organic biocide selected from the group consisting of azoles. The only difference is that the instant application requires the use of micronized particles . Laks et al. teach a method for incorporating biocides into wood wherein the particle range of the components is 50-400 nanometers (.05-40 microns) (see figure 8). From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 4-13 of copending Application No. 11/471,763.

Copending “763” claims 1 and 4-13 recite the same method as instant claims 23-48 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides and specific dispersing agents. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

4.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6 and 9-13 of copending Application No. 11/849082 .

Copending “082” claims 6 and 9-13 recite the same method as instant claims 23-48 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic particle and specific dispersing agents. The difference between the invention of the instant application and that of “082” is that the instant invention does not require the use of a micronized zinc compound component. It would be obvious to one of ordinary skill in the art to not use a micronized zinc compound component depending on the intended use of the wood preservative composition. From this

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extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

5.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9, 13-15, 17 and 23-24 of copending Application No. 11/126,839.

Copending “839” claims 9, 13-15, 17 and 23-24 claims the same method as instant claim 23 except the instant claims do not require the use of micronized pigment particles. It would be obvious to one of ordinary skill in the art to use micronized pigment particles to provide color to the wood product being treated. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

6.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11-

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23 of copending Application No. 11/116152 in view of Heuer et al. (US Patent 5,874,025).

Copending “152” claims 11-23 claims the same method as instant claim 23 except the instant claims require using agents selected from emulsifying agents, water repellants, and UV stabilizers and a pressure processes for impregnating wood. However, Heuer et al. teach using emulsifying agents, water repellants, and UV stabilizers and a pressure processes for impregnating wood in wood preservative compositions. One of ordinary skill would have been motivated at the time of the instant invention to make this combination in order to receive the expected benefit of the emulsifying agents, water repellants, and UV stabilizers combined with pressure processes to aid in the penetration of the wood preservative composition. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

7.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11-23 of copending Application No. 11/526,765 in view of Laks et al.(US Patent Application 2002/0051892 A1).

Copending “765” claims 12-15 and 17-20 claims the same method as instant claim 23 which is drawn to a method for preserving/fabricating a wood product by

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treating it with a composition comprising a copper bearing inorganic biocide and an organic biocide selected from the group consisting of azoles. The only difference is that the instant application does not require the use of a specific dispersing agent. One of ordinary skill in the art would be motivated not to use a dispersing agent because Dispersing agents are used to stabilize micronized particles during storage and the composition of the instant application may not need to be stored. .From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

8.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 54-74 of copending Application No. 12125166.

Copending "166" claims 54-74 recite the same method as instant claim 23 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides . From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

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9.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 54-74 of copending Application No. 12135167.

Copending “167” claims 54-74 recite the same method as instant claims 23 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

10.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 23-48 of copending Application No. **12071707**.

Copending “707” claims 23-48 recite the same method as instant claim 23 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides . From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

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11.

Claims 23-48, 57, and 96-105 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 25-32 of copending Application No. 12073452.

Copending "452" claims 25-32 recite the same method as instant claims 23-48, 57, and 96-105 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

12.

Claims 23-31, 57, and 106 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21,24,25,31,35,54,57,58, 66-68 and 70 of U.S. Patent No. 7,001,452 B2 in view of Heuer et al. (US Patent 5,874,025) . Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by the US Patent.

Instant claims 23 and 34 and patented claims 21, 24,25,31,35,54,57,58, 66-68 is drawn to a method for preserving a wood product by treating it with a composition comprising a copper bearing inorganic biocide and an organic biocide selected from the

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group consisting of azoles. The only difference is the method of the instant invention requires agents selected from emulsifying agents, water repellants, and UV stabilizers. The instant claims also require the use of a pressure processes for impregnating wood. However, Heuer et al. teach using emulsifying agents, water repellants, and a pressure processes for impregnating wood in wood preservative compositions. One of ordinary skill would have been motivated at the time of the instant invention to make this combination in order to receive the expected benefit of the emulsifying agents, water repellants, and UV stabilizers combined with pressure processes to aid in the penetration of the wood preservative composition. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by the US Patent.

13.

Claims 23-48, 57, and 96-105 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18-20, 25-29, 43-45, 49-51, and 53 of U.S. Patent No. 6,843,837 in view of Heuer et al. (US Patent 5,874,025). Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by the US Patent.

Instant claims 23 and 34 and patented claims 18-20, 25-29, 43-45, 49-51, and 53 is drawn to a method for preserving a wood product by treating it with a composition

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comprising a copper bearing inorganic biocide and an organic biocide selected from the group consisting of azoles. The only difference is the method of the instant invention requires agents selected from emulsifying agents, water repellants, and UV stabilizers. The instant claims also require the use of a pressure processes for impregnating wood. However, Heuer et al. teach using emulsifying agents, water repellants, and a pressure processes for impregnating wood in wood preservative compositions. One of ordinary skill would have been motivated at the time of the instant invention to make this combination in order to receive the expected benefit of the emulsifying agents, water repellants, and UV stabilizers combined with pressure processes to aid in the penetration of the wood preservative composition. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by the US Patent.

Examiner's Response to Applicant's Remarks

Applicant's request to hold in abeyance the provisional nonstatutory obviousness-type double patenting rejections is acknowledged. However, the Examiner cannot do this. Therefore, the provisional nonstatutory obviousness-type double patenting rejections have been maintained and altered to fit Applicant's amendments (see New Double Patenting Rejection below).

Applicant's arguments with respect to claim 23-48, 57 and 96-105 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21, 24, 25, 31, 35, 54, 57, 58, 66-68 and 70 of U.S. Patent No. 7,001,452 B2 in view of

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Heuer et al. (US Patent 5,874,025) further in view of Bell (US Patent 5,426,121) and Preston et al. (US Patent 6,274,199) have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments with respect to claims 23-48,57 and 96-105 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18-20, 25-29,43-45,49-51, and 53 of U.S. Patent No. 6,843,837 in view of Heuer et al. (US Patent 5,874,025) further in view of Bell (US Patent 5,426,121) and Preston et al. (US Patent 6,274,199) have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 23-31,34-45,57, 96-144 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heuer et al. (US Patent 5,874,025) in view of Laks et al.(US Patent Application 2002/0051892 A1) and Walker (US Patent 5,438,034).

Applicant's Invention

Applicant claims a method for preserving a wood product and a method for wood preservation comprising the steps of adding water to a concentrate wood preservative concentrate composition and pressure treating the wood or wood product with the aforementioned wood preservative composition comprising: A.) a micronized inorganic biocide (copper nitrate, copper sulfate, copper acetate, copper carbonate, copper carbonate hydroxide) and an organic biocide (dimethyldidecylammonium carbonate,tebuconazole, dimethyldidecylammonium bicarbonate) present as micronized particles between 0.05 to 1 microns; B.) An agent selected from the group

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consisting of water repellants, colorants, emulsifying agents, dispersants, stabilizers, and UV inhibitors.

***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

Heuer et al. teach novel wood preservatives and a method of preserving wood (see claims 5-8 of reference) comprising the use of a composition comprising an inorganic biocide such as copper compounds. Heuer et al. teach copper compounds such copper nitrate, copper sulfate, copper acetate, copper carbonate, copper carbonate hydroxide (column 2, lines 37-43); an organic biocide such as ,tebuconazole (column 7, lines 63-65),and emulsifying agents(column 12, lines 26-34), water repellants, and UV stabilizers (column 17, lines 12-17). Heuer et al. also teach that pressure processes as effective impregnating processes for wood protection (column 18, lines 42-45)

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Heuer et al. is that the instant invention requires that the organic and inorganic biocides are present as micronized particles between 0.005 to 1 micron as opposed to being present as nonmicronized particles. For this reason, the teaching Laks et al. is joined. Laks et al. teach a method for incorporating biocides into wood wherein the particle range of the components is 50-400 nanometers (.05-40 microns) (see figure 8) which is made by

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incorporating organic biocides into polymeric nanoparticles (see [0020]). Additionally, Laks et al. teach that because the biocides are dispersed in a solid, insoluble polymeric nanoparticle which can be suspended in water or any convenient liquid or simply used as a dry powder, any biocide, even those with low solubility in organic solvents, can be introduced into wood using the conventional pressure treatment techniques used for water-borne biocides (see [0020]). The Examiner wants to point to the fact that Applicant uses the "comprising" language in the claims of the instant application. According to MPEP 2111.03 [R-3], the transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. Hence, the use of "comprising" language in the instant claims would allow for the inclusion of incorporating organic biocides into polymeric nanoparticles and introducing the nanoparticles into wood composites.

Another difference between the invention of the instant application and that of Heuer et al. is that the instant invention requires the use of didecyldimethylammonium carbonate and didecyldimethylammonium bicarbonate. For this reason, the teaching of Walker is joined. Walker teaches the use of didecyldimethylammonium carbonate as a preferred carbonate quaternary compound for use as wood preservatives (column 5, lines 15-31). Walker also teaches the use of didecyldimethylammonium bicarbonate in a wood preservative composition (see reference claim 2).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of cited references to devise a method for preserving wood and a wood product. One would be motivated to make this combination in order to receive the expected benefit of the micronized particles with a diameter which will aid in the penetration of the wood preservative components (Lake et al, [0019]) . “It would be prima facie obvious to combine two methods each of which is taught by the prior art to be useful for the same purpose in order to form a resultant composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art.” In re Kerkhoven 205 USPQ 1069 (C.C.P.A. 1980).

Additionally, it is routine optimization for one of ordinary skill in the art to adjust the amount of ingredients to optimize the desired results. In this case the percentages of the organic/inorganic biocides are routine optimization.

Claims 116,129,133, and 141 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heuer et al. (US Patent 5,874,025) in view of Bath et al. (US Patent 6,482,814 B).

Applicant's Invention

Applicant claims a method for preserving a wood product comprising the steps of contacting a wood preservative composition comprising a milled carbonate with a particle size of between 0.05 to 1 micron.

***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

The teaching of Heuer et al. is discussed above and hereby incorporated by reference.

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Heuer et al. is that the instant invention requires that both copper carbonate and tebuconazole components are milled particles. For this reason, the teaching of Bath et al. is joined. Bath et al. teach biocidal compositions (title) that can be used to protect wood (column 5, lines 54-63) wherein dispersions containing a solid component can be prepared by any means known to the art and including bead, pebble or ball milling the solid in the liquid carrier until the desired particle size of the solid is attained. Additionally, Bath et al. teach that the preferable particle size is less than 20 microns, more preferably less than 10 microns and especially less than 5 microns (column 5, lines 27-33).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of cited references to devise a method for preserving wood and a wood product. One would be motivated to make this combination in order to receive the expected benefit of the milled micronized particles with a diameter which will aid in the penetration of the wood preservative components (Lake et al, [0019]) . “It would be prima facie obvious to combine two methods each of which is taught by the prior art to be useful for the same purpose in order to form a resultant composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art.” In re Kerkhoven 205 USPQ 1069 (C.C.P.A. 1980.

Additionally, it is routine optimization for one of ordinary skill in the art to adjust the amount of ingredients to optimize the desired results. In this case the percentages of the organic/inorganic biocides are routine optimization.

Claims 116,122,126,127,130-132,134-136,138-140, and 142-144 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heuer et al. (US Patent 5,874,025) in view of Nicholas et al. (US Patent 5,462,589).

Applicant's Invention

Applicant claims a method for preserving a wood product comprising the steps of contacting a wood preservative composition comprising a milled carbonate with a particle size of between 0.05 to 1 micron wherein said treatment produces a uniform distribution of copper throughout the wood product wherein after the contacting step, said wood product is resistant to decay and insect attack.

***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

The teaching of Heuer et al. is discussed above and hereby incorporated by reference.

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Heuer et al. is that the instant invention requires that treatment of the wood product with the claimed wood preservative composition produces a uniform distribution of copper throughout the wood product that is resistant to decay and insect attack as opposed to just penetrating the wood product and protecting it from fungus attack. For this reason, the teaching of Nicholas et al. is joined. Nicholas et al. teach the use of synergistic

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biocidal compositions that combine a copper salt and an organic biocide (abstract) for protect of wood against insects (column 2, lines 62-end) and decay (column 5, lines 41-45) and providing uniform distribution (column 11, lines 1-6).

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Additionally, it is routine optimization for one of ordinary skill in the art to adjust the amount of ingredients to optimize the desired results. In this case the percentages of the organic/inorganic biocides are routine optimization.

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on May 9, 2008 have been fully considered but they are not persuasive. Applicant argues that Heuer et al. do not teach micronized particles of an inorganic biocide which are dissolved as a clear solution. However, the secondary teaching of Laks et al. was bought in to show that the use of micronized inorganic biocide particles in wood preservative compositions was known at the time of the instant invention. Hence, whether the inorganic biocide is dissolved as a clear solution would not preclude one of ordinary skill from its selection.

Applicant argues that Laks et al. disclose compositions and methods for incorporation dissolve/soluble biocides into nanoparticles. However, the secondary teaching of Laks et al. was bought in to show that the use of micronized inorganic biocide particles in wood preservative compositions was known at the time of the instant invention. Hence, whether the inorganic biocide is dissolved as a clear solution would not preclude one of ordinary skill from its selection.

Additionally, Applicant argues that Laks et al. teach the formation of polymer particles by the use of particles containing a dissolved organic biocide and does not teach that micronized particles of biocides can effectively preserve wood. However, the secondary teaching of Laks et al. was bought in to show that the use of micronized inorganic biocide particles in wood preservative compositions was known at the time of the instant invention. Hence, whether the inorganic biocide is dissolved as a clear solution would not preclude one of ordinary skill from its selection.

The Examiner wants to point to the fact that Applicant uses the "comprising" language in the claims of the instant application. According to MPEP 2111.03 [R-3],

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the transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. Hence, the use of "comprising" language in the instant claims would allow for the inclusion of incorporating organic biocides into polymeric nanoparticles and introducing the nanoparticles into wood composites.

Conclusion

None of the claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Group Art Unit 1616

/Mina Haghighatian/
Primary Examiner, Art Unit 1616